Claims

1. A method for modifying the properties of a fibrin matrix with respect to growth and ingrowth of cells, wherein for forming the fibrin matrix a fibrinogen is used consisting of a selected fibrinogen variant or a fibrinogen enriched or depleted in a selected fibrinogen variant.

2. A method according to claim 1, wherein angiogenesis properties of a fibrin matrix are modified.

3. A method according to claim 1 of 2, wherein the fibrinogen variant is selected from the group consisting of HMW fibrinogen, LMW fibrinogen, LMW' fibrinogen, Fib420 fibrinogen and gamma' fibrinogen.

4. A method according to any one of the preceding claims 1-3, wherein a fibrin matrix is formed which leads to accelerated angiogenesis.

5. A method according to claim 4, wherein for forming the fibrin matrix a fibrinogen is used consisting of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW fibrinogen and/or LMW' fibrinogen.

6. A method according to any one of claims 1-3, wherein a fibrin matrix is formed which leads to decelerated angiogenesis.

7. A method according to claim 6, wherein for forming the fibrin matrix a fibrinogen is used consisting of LMW fibrinogen or of a mixture of fibrinogen variants enriched in LMW fibrinogen or depleted in HMW fibrinogen.

8. A method according to claim 6, wherein for forming the fibrin matrix a fibrinogen is used consisting of LMW' fibrinogen or of a mixture of fibrinogen variants enriched in LMW' fibrinogen or depleted in HMW fibrinogen.

9. A method according to any one of claims 1-8, wherein the fibrin matrix is formed *in vitro*, the fibrin matrix being formed by converting the fibrinogen by means of a suitable enzyme, such as thrombin, and optionally factor XIIIa and $CaCl_2$, into fibrin.

10. A method according to claim 9, wherein the fibrin matrix is used in an angiogenesis test.

11. A method according to any one of claims 1-8, wherein the fibrin matrix is formed *in vivo*, the fibrinogen, optionally in combination with a suitable enzyme, such as thrombin, and optionally factor XIIIa and $CaCl_2$, being applied in the place where the formation of a fibrin matrix takes place.

12. A method according to claim 11, wherein the fibrinogen is applied to inhibit or prevent tumor growth, cicatrization, adhesions and the like, or to promote the healing of burns and other wounds.

13. A method according to any one of claims 1-8, wherein the fibrin matrix is formed *in vivo* from a fibrinogen in which the HMW/LMW and/or HMW/LMW' ratio is modulated by stimulating or inhibiting the conversion of HMW fibrinogen into LMW fibrinogen, such as within the scope of a treatment of post-thrombotic syndrome.

14. A pharmaceutical composition, comprising fibrinogen and a pharmaceutically acceptable carrier, wherein the fibrinogen consists of a selected fibrinogen variant or a fibrinogen enriched or depleted in a fibrinogen variant.

15. A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW en/of LMW' fibrinogen.

16. A pharmaceutical composition according to claim 15, which is suitable for promoting wound healing, inhibiting or preventing cicatrization or treating burns.

17. A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of LMW fibrinogen or of a mixture of fibrinogen variants enriched in LMW fibrinogen or depleted in HMW fibrinogen.

18. A pharmaceutical composition according to claim 14, wherein the fibrinogen consists of LMW' fibrinogen or of a mixture of fibrinogen variants enriched in LMW' fibrinogen or depleted in HMW fibrinogen.

19. A pharmaceutical composition according to claim 17 of 18, which is suitable for inhibiting or preventing tumor growth or adhesions.

20. A test kit, comprising components for the formation of a fibrin matrix, including fibrinogen, wherein the fibrinogen consists of a selected fibrinogen variant or a fibrinogen enriched or depleted in a selected fibrinogen variant.

21. A test kit according to claim 20, wherein the fibrinogen consists of HMW fibrinogen or of a mixture of fibrinogen variants enriched in HMW fibrinogen or depleted in LMW and/or LMW' fibrinogen.

22. A test kit according to claim 20 or 21, also comprising an enzyme suitable for forming fibrin from fibrinogen, such as thrombin, and optionally factor XIIIa and/or $CaCl_2$.

23. A test kit according to any one of claims 20-22, also comprising components for effecting angiogenesis.

24. A test kit according to claim 23, comprising as components for effecting angiogenesis one or more angiogenic growth factors, such as fibroblast growth factor-2 (FGF-2) or vascular endothelial growth factor (VEGF), and/or tumor necrosis factor alpha (TNF-α), and/or cells, such as human endothelial cells.